



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/120,664

07/22/1998

DAVID F. GAVIN

101792-300

2454

27267

7590

06/10/2009

WIGGIN AND DANA LLP  
ATTENTION: PATENT DOCKETING  
ONE CENTURY TOWER, P.O. BOX 1832  
NEW HAVEN, CT 06508-1832

EXAMINER

GROSS, CHRISTOPHER M

ART UNIT

PAPER NUMBER

1639

MAIL DATE

DELIVERY MODE

06/10/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/120,664	<b>Applicant(s)</b> GAVIN ET AL.	
	<b>Examiner</b> CHRISTOPHER M. GROSS	<b>Art Unit</b> 1639	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,38,40-42,46 and 50 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,38,40,41,42,46,50 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

Responsive to communications entered 3/16/2009. Claims 1,38,40,41,42,46,50 are pending. Claims 1,38,40,41,42,46,50 are under consideration.

#### ***Priority***

This application has a filing date of 7/22/1998. Applicant makes no claim for the benefit of any prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c).

#### ***Withdrawn Objection(s) and/or Rejection(s)***

The rejection of claims 38 and 41 under 35 U.S.C. 102(e) as being anticipated by Morris US Pat. No. 5,916,947 (6/99: filed 9/96 or earlier) is hereby withdrawn in view of applicant's amendments to the claims.

#### ***Maintained Claim Rejection(s) - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 40, 42, 46 are rejected under 35 U.S.C. 102(e) as being anticipated by Morris US Pat. No. 5,916,947 (6/99: filed 9/96 or earlier) for the reasons set forth in the office action mailed 7/21/2004.

*Response to Arguments*

In the remarks entered 3/16/2009 applicant argues not all elements are taught.

Applicant's arguments have been fully considered but they are not deemed persuasive for the following reasons.

On p 5-7, especially p 6 last sentence in the first paragraph, applicant conjectures, based on claims 1 and 15 of Morris, drawn to four parts zinc oxide to zinc pyrithione the particles described therein constitute Zinc Oxide particles (shell) physically coating Zinc Pyrithione particles (core), the opposite of what is currently claimed.

This is not found persuasive because the arguments of counsel cannot take the place of evidence in the record. In re Schulze, 346 F.2d 600, 602, 145 USPQ 716, 718 (CCPA 1965); In re Geisler, 116 F.3d 1465, 43 USPQ2d 1362 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness.") (see MPEP 2145 I.) In the instant case, Applicant's counsel argues the material disclosed by Morris comprises zinc pyrithione particles. It is noted however, nowhere in Morris et al patent are Zinc Pyrithione particles disclosed. Furthermore, said interpretation is in marked contrast with the plain meaning of the abstract of Morris which states the invention is drawn to "... zinc oxide which has been surface coated by

Art Unit: 1639

photosensitizers [e.g. zinc pyrithione]..." It does not say, as applicant asserts zinc pyrithione particles with a surface of zinc oxide particles. See also claims 9 and 16 of Morris et al drawn mixing a photosensitizer and zinc oxide particles in solution to surface coat a photosensitizer onto the zinc oxide particle.

Additionally, applicant again on pp 5-7, argues that the physical process of Morris et al is different from the chemical process of the present application. The examiner agrees that the processes are different, however applicant has not presented any evidence on the record that the physical process of Morris et al vs. the chemical process of the present application provides, for example zinc oxide coated with zinc pyrithione with any physiochemical differences. As mentioned the past four office actions, the transchelation reaction set forth in the claims constitute product-by-process limitations which do not serve to differentiate the currently claimed product from that of Morris et al. See MPEP 2113.

***New Claim Rejection(s) – Necessitated by Amendment***

***35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 1639

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 38, 40, 41, 42, 46 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Morris et al** (US Patent 5916947) in view of **Kappock et al** (US Patent 5518774; PTO 892 7/21/2004)

**Morris et al** is relied on as above and in the office action mailed 7/21/2004.

**Morris et al** do not teach particle sizes ranging 1 to 20 microns, as set forth in amended claim 38; cores consisting essentially of zinc and a shell of sodium pyrithione, as set forth in claim 50.

**Kappock et al** teach, throughout the document and especially the title and column 1 lines 14-33, in-can and dry coating antimicrobial compositions for latex paints.

**Kappock et al** teach in column 1 lines 41 and 44 and the paragraph bridging columns 2 and 3 said antimicrobial compositions are made from a transchelation reaction with, for instance a zinc salt and sodium pyrithione.

Said zinc salt is taken as providing the material consisting essentially of zinc as set forth in claim 50.

It would have been *prima facie* obvious for one of ordinary skill in the art, at the time the claimed invention was made to prepare the antifouling coating of Morris with the zinc salt and sodium pyrithione of Kappock et al.

One of ordinary skill in the art would have been motivated to prepare the antifouling coating of Morris with the zinc salt and sodium pyrithione of Kappock et al because it would provide for a combination of in-can preservation as well as dry film efficacy against microbial attack without the need for formaldehyde releasers which constitute an environmental toxin as noted by Kappock et al in column 1 lines 5-10 and 22-26.

In so far as the presently claimed larger 1-20 micron dimension particle in claim 38 is concerned, according to MPEP 2144.04 (IV)(A), citing In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984), the Federal Circuit held that, where the only difference between the prior art and the claims was a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device was not patentably distinct from the prior art device.

Here, Morris et al teach 0.1 to 0.5 micron particles in claim 1 which, absent evidence to the contrary, would not perform differently than the 1 to 20 micron particles of present claim 38.

One of ordinary skill in the art would have had a reasonable expectation of success in applying the zinc salt and sodium pyrithione of Kappock et al of toward the

Art Unit: 1639

antifouling composition of Morris et al because both references are drawn to paint formulations: see especially claim 2 of Morris.

In conclusion, the claimed invention was within the ordinary skill in the art to make and use at the time the claimed invention was made and was as a whole, prima facie obvious.

### **35 USC § 112**

The following is a quotation of the **first** paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 50 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection concerns “new matter.”

New claim 50 is drawn to composite particles made from zinc or zinc selenide by transchelation with potassium pyrithione

While applicant attempts to point to support in table 2 in the response entered 3/16/2009, it is noted that potassium pyrithione is not disclosed therein.



Accordingly, the specification as originally filed provided no implicit or explicit support for generating composite particles of zinc or zinc selenide by transchelation with potassium pyrithione as set forth in claim 50.

Applicants are reminded that it is their burden to show where the specification supports any amendments to the disclosure. See MPEP 714.02, paragraph 5, last sentence and also MPEP 2163.06 I.

MPEP 2163.06 notes “If new matter is added to the claims, the examiner should reject the claims under 35 U.S.C. 112, first paragraph - written description requirement. *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981).” MPEP 2163.02 teaches that “Whenever the issue arises, the fundamental factual inquiry is whether a claim defines an invention that is clearly conveyed to those skilled in the art at the time the application was filed...If a claim is amended to include subject matter, limitations, or terminology not present in the application as filed, involving a departure from, addition to, or deletion from the disclosure of the application as filed, the examiner should conclude that the claimed subject matter is not described in that application. MPEP 2163.06 further notes “When an amendment is filed in reply to an objection or rejection based on 35 U.S.C. 112, first paragraph, a study of the entire application is often necessary to determine whether or not “new matter” is involved. *Applicant should therefore specifically point out the support for any amendments made to the disclosure.*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1639

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER M. GROSS whose telephone number is (571)272-4446. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571 272 0951. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher M Gross  
Examiner  
Art Unit 1639

cg

/ Christopher S. F. Low /  
Supervisory Patent Examiner, Art Unit 1639